

Title (en)

METHOD FOR SENSORCHECK OF A BICYCLE WITH ELECTRIC DRIVE AND SYSTEM THEREFORE

Title (de)

VERFAHREN ZUR ZUSTANDSERKENNUNG VON PEDALSENSOREN EINES FAHRRADS MIT ELEKTROANTRIEB SOWIE STEUERUNGSVORRICHTUNG HIERFÜR

Title (fr)

MÉTHODE POUR LA RECONNAISSANCE DE L'ÉTAT D'UN CAPTEUR D'UNE BICYCLETTE ELECTRIQUE ET SON SYSTÈME

Publication

EP 2566747 B1 20170830 (DE)

Application

EP 11714045 A 20110413

Priority

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- EP 2011055779 W 20110413

Abstract (en)

[origin: WO2011138138A1] The invention relates to a method for detecting the state of pedal sensors of a bicycle with an electric drive. According to the invention, the rotational speed sensor signal is provided by means of a rotational speed sensor (22) of the pedal sensors, and a torque sensor signal is provided by means of a torque sensor (20) of the pedal sensors. A first pedal driving state is determined on the basis of the rotational speed sensor signal, and a second pedal driving state is provided on the basis of the torque sensor signal. The first pedal driving state is compared with the second pedal driving state and an error signal is provided if the first pedal driving state differs from the second pedal driving state. The invention furthermore relates to a control device designed to control an electric drive of an electric bicycle. The control device comprises pedal sensors which are designed to detect rotational speed and torque of a pedal drive. The control device comprises an evaluation circuit which has a threshold value comparator which compares the signals of the rotational speed sensor and of the torque sensor with a first and second threshold value, respectively, in order to detect a first and second pedal driving state, respectively. The evaluation circuit furthermore has an error detection circuit which is designed to compare the first pedal driving state with the second pedal driving state, and which provides an error signal when the states differ.

IPC 8 full level

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CPC (source: EP)

B60L 3/0038 (2013.01); **B60L 50/20** (2019.01); **B62M 6/45** (2013.01); **B62M 6/50** (2013.01)

Citation (examination)

- JP H09286377 A 19971104 - SUZUKI MOTOR CO
- JP 2006078304 A 20060323 - MORIC CO LTD

Cited by

WO2023144103A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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